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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/27/2005

Carl Glasse

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11/26/2008

LIU & LIU

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EXAMINER

TAYLOR, EARL N

ART UNIT

PAPER NUMBER

2818

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,020	Applicant(s) GLASSE ET AL.	
	Examiner EARL N. TAYLOR	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-17 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16, 17 and 20-27 is/are allowed.
- 6) ☒ Claim(s) 9-13 and 28-30 is/are rejected.
- 7) ☐ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 9, filed 12 September 2008, with respect to the rejection(s) of claim(s) 13 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Yamazaki et al. (U.S. Patent 6,501,098 B2).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 28-30 recites the claim language "so that the fillet remains within the TFT finally formed". The scope of the claim language is vague and indefinite. At best it is unclear when is the TFT finally formed. Furthermore, Claim 29 recites the claim language "further comprising the step of retaining the fillet..."; this does not constitute a positive recitation of performing a step. The manner in which the claims are written does not define when the TFT is finally formed; could the TFT be finally formed the moment step (d) is completed while the fillet is still present? The examiner suggests

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when responding to clarify these issues to be aware of adding negative limitations as new matter can be potentially introduced.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al. (U.S. Patent 6,501,098 B2) hereinafter referred to as “Yamazaki”.

Referring to Claim 13, Yamazaki teaches, in Fig. 3A-3C and 8A a method of fabricating a polycrystalline silicon channel TFT with a gate overlying the channel, having an upstanding gate side wall, the method comprising the steps of:

(a) providing a gate (308 and 309) separated from a polycrystalline silicon layer (303) by an insulating layer (306) (Fig. 3A);

(b) implanting a dopant into the polycrystalline silicon layer (303) using the gate (308 and 309) as a mask (Col. 13, Lines 25-45; Fig. 3B);

(c) forming a spacer layer (856; Fig. 8A) after step (b) adjacent to the gate (308 and 309) that comprises a conductive region which overlies the polycrystalline silicon layer (303) and extends along the gate (308 and 309) side wall, comprising depositing a layer of conductive material (321; Fig. 3C) over the polycrystalline silicon layer (303)

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and the gate (308 and 309), and selectively etching the deposited layer of conductive material (321) to form the spacer (856) with a first portion overlying the polycrystalline silicon layer (303) and a second portion extending along on the side wall of the gate (309), wherein the selective etching of the conductive layer (321) is carried out by forming a fillet (resist mask 801) over the first portion thereof, and selectively etching the conductive layer (321) where not protected by the fillet (801); and

(d) implanting a dopant into the polycrystalline silicon layer (303) using the gate (308 and 309) and the spacer (856) as a mask to form a source or drain region (806 and 807), such that the spacer (856) overlies an LDD region in the polycrystalline silicon layer (303) between the source or drain region and the channel (Fig. 8A) (Col. 17, Lines 61-77 and Col. 18, Lines 15-23). Yamazaki teaches that the fillet (resist mask 801) is formed and the spacer (conductive layer 321) is partly removed by etching before the second doping step shown in Fig. 8A.

Referring to Claim 9, Yamazaki further teaches depositing the layer of conductive material (321) to a thickness which is less than that of the gate (308 and 309).

Referring to Claims 10 and 11, Yamazaki further teaches depositing the layer of conductive material (321) by sputtering to form a non-conformal layer (Col. 13, Line 58).

Referring to Claim 12, Yamazaki further teaches depositing said layer of conductive material (321) as a metallic layer (51-55; Col. 11, Lines 1-2).

As insofar as claims 29 and 30 are definite, Yamazaki further teaches all of the claimed method steps wherein the moment the implantation of step (d) is finished the fillet is still present thus all of the method limitations are met at that moment. Therefore

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since all of the positively recited claimed steps have been taught the TFT must have been finally formed.

Allowable Subject Matter

Claims 16, 17 and 20-27 are allowable.

Claim 14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claim 14, the prior art of record alone or in combination neither teaches nor makes obvious the invention of selectively etching the further layer to form the fillet therefrom in combination with all of the limitations of Claims 13 and 14.

Regarding Claim 16, the prior art of record alone or in combination neither teaches nor makes obvious the invention of depositing a further layer as a Si containing layer on the conductive layer and selectively etching the further layer to form the fillet therefrom in combination with all of the limitations of Claim 16.

Regarding Claim 17, the prior art of record alone or in combination neither teaches nor makes obvious the invention of depositing a further layer by CVD on the conductive layer and selectively etching the further layer to form the fillet therefrom in combination with all of the limitations of Claim 17.

Telephone / Fax Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Earl N. Taylor whose telephone number is (571) 272-8894. The examiner can normally be reached on Monday-Friday from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Loke can be reached on (571) 272-1657. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: Earl N. Taylor

/DAVID VU/
Primary Examiner, Art Unit 2818